

Hideaki OHBA*: **New or critical species of Asiatic Sedoideae (4)****

大場秀章*: アジア産マンネングサ亜科の分類学的研究 (4)***

(7) A new species of *Sedum* from Nepal

***Sedum pseudo-multicaule* H. Ohba, sp. nov.** [Subgen. *Sedum*]

A *Sedo multicauli* Wall. ex Lindl. 1) sepalis liberis apice rotundatis vel obtusis petalis brevioribus sub anthesi, 2) petalis leviter connatis, 3) ovariis basi alte (longitudine 1.5–1.8 mm) connatis, 4) foliis longioribus valde differt.

Herba perennis ad 20 cm alta. Caules floriferi adscendentes—suberecti sed basi longe repentes, 2.5–3.5 mm lati, simplices teretes, glabri laeves, in parte basali caulem sterilem edentes. Folia 3-verticillata—opposita—alterna, potius remotiuscule disposita, sessilia calcarata (calcari late oblongi-ovato apice truncato, 1.7–2.3 mm longo), 2.5–4 cm longa 3–5 mm lata, angusti-oblan-ceolata—lineari-oblan-ceolata apice obtusa—acuta basi attenuata margine integra, ± crassiuscula sed complanata, glabra laevia; costa utrinque non prominenti. Inflorescentia cymosa terminalis, floribus 10–30 laxe ornata, bracteata; axibus principalibus 1.5–4 cm longis, adscendentibus saepe dichasia-liter ramificantibus; bracteis foliis caulinis similibus sed minoribus.

Flores hermaphroditi quinque-partiti, 10–12 mm dimetiente, pedicellati, pedicello 2–4 mm longo, ± mamillato. Sepala libera ecalcarata, linearia apice rotundata—obtusa, 4.5–7 mm longa 0.9–1.5 mm lata, ± inaequilonga, viridia crassiuscula glabra laevia, adscendentia sub anthesi. Petala lutea, ad basin leviter (longitudine 1.2–1.5 mm) connata, toto 7.5–9 mm longa 1.7–2.1 mm lata, margine integra, ± cymbiformia, erectiuscula sub anthesi. Stamina numero 10; filamentis subulatis sub anthesi erectis, oppositipetalis longitudine ca. 2 mm e basin connatis, parte libera 4–5 mm longis, alternipetalis 6.5–7.6 mm longis; antheris 0.8–1 mm longis, oblongi-ovatis apice rotundatis, ut videtur, ante anthesin auranti-luteis. Glandulae 1–1.2 mm longae 0.2–0.3 mm latae, angusti-oblongae—lineares apice truncatae—rotundatae. Gynoecea 6.5–8.2 mm

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longa; ovario basi longitudine 1.5-1.8 mm connato, sub anthesi erecto, latere ventrali gibbositate, 0.9-1.4 mm lato, stylo potius distincto 1.5-1.8 mm longo, apice \pm sufflatiusculo, placenta marginali. Ovula in quoque loculo numero ca. 30, oblongo-elliptica, ca. 0.7 mm longa.

Hab. NEPAL. Bagarchap, alt. 2100 m (T. Fujimura s.n., KYO); Central Nepal, Bee—Namura (T. Namba 1006040-2, KYO—Holotypus).

This species is apparently related to *Sedum multicaule* Wall. ex. Lindl., but differs from the latter in having 1) free sepals with a round or obtuse apex, 2) slightly connate petals, 3) ovaries connate 1.5-1.8 mm from the base, and 4) longer leaves.

(8) A new subspecies of *Rhodiola primuloides* (Franch.) Fu

Among the Ludlow-Sherriff collection of the S. Tibetan Sedoideae, I found *Rhodiola primuloides* (Franch.) Fu, which had been restricted within S.W. China (Yunnan & Szechuan). The S. Tibetan plant is, however, different from the S.W. Chinese one in the characters of petals and calyxlobes. The petal of the Tibetan plant is larger (7.5-8.5 \times 4-4.5 mm in size) and has entire margins, while that of the S.W. Chinese plant is smaller (5-6.5 \times 2.3-3.5 mm in size) and has irregularly fimbriate or erose margins. The calyxlobes of the former is broadly oblong against lanceolate—ovate—triangular-ovate. Then, I regard the S. Tibetan plant as a subspecies of the S.W. Chinese *R. primuloides* and name it as subsp. *kongboensis*.

Rhodiola primuloides (Franch.) Fu in Act. Phytotax. Sin. Addit. 1: 118 (1965)—H. Ohba in Journ. Fac. Sci. Univ. Tokyo, III, 12: 185 (1978).

Subsp. *primuloides*

Sedum primuloides Franch. in Journ. de Bot. 10: 287 (1896)—R.-Hamet in Not. Bot. Gard. Edinb. 5: 117 (1912); in Candollea 4: 44 (1929)—Praeger in Journ. Roy. Hort. Soc. 46: 69 (1921)—Fröd. in Act. Hort. Gothob. 5: append. 23, Pl. 1-2 (1930); in Hand.-Mzt., Symb. Sin. 7: 404 (1931)—Berger in Engl. et Prantl, Nat. Pflanzenfam. 2 Aufl. 18a: 443 (1930).

Sedum pleurogynanthum Hand.-Mzt. in Anz. Akad. Wiss. Wien. Math.-Naturw. 59: 138 (1922); Symb. Sin. 7: 404 (1931).

Sedum primuloides Franch. var. *pleurogynanthum* (Hand.-Mzt.) Fröd. in Act. Hort. Gothob. 5: append. 24 (1930).

Rhodiola pleurogynantha (Hand.-Mzt.) Fu in Act. Phytotax. Sin. Addit. 1: 119 (1965).

Distr. S. W. China (Yunnan and Szechuan).

Subsp. **kongboensis** H. Ohba, subsp. nov.

A typo petalis semper integris (non fimbriatis—erosis) 7.5–8.5 (nec 5–6.5) mm longis 4–4.5 (nec 2.3–3.5) mm latis et lobis calycis late oblongis (nec lanceolatis—ovatis—triangulari-ovatis) bene differt.

Distr. S. Tibet.

Specimen examined. S. Tibet. Kongbo Prov.: Dzyang La, alt. 13500 ft. Calyx pale green often with russet red tinge, petals snow white, filaments red which give a red false tinge to the petal, ovary white. In cracks in rocks (Ludlow, Sherriff & Elliot 14299 on 10 Aug. 1947, BM—Holotype; KATH—Isotype).

(9) On *Sedum Karpelesae* R.-Hamet

Sedum Karpelesae R.-Hamet (1912) was described based on a collection by Walton in Sept. 1904 at Phembu La, 10–15 miles north of Lhasa, Tibet, and considered to be closely akin to *Sedum* (= *Rhodiola*) *Prainii* R.-Hamet and *S. Levii* R.-Hamet. *S. Levii* is a synonym of *Rhodiola humilis* (Hook. f. et Thoms.) Fu (Cf. Ohba 1975). Fröderström (1930) placed *S. Karpelesae* in the Primuloides group of *Sedum* sect. *Rhodiola*, and Berger (1930) placed the species in §. Brevicaulia of *Sedum* sect. *Rhodiola* subsect. Primuloidea. Later Fu (1965) removed it into the genus *Rhodiola* (in sect. Primuloides). Although the type specimen of *S. Karpelesae* (CAL 159733) is very poor and lacks some important characters, it has a solitary, large hermaphrodite flower which has petals 4–5.5 mm long and ovaries 3.5–4 mm long with a erect 1.2 mm long style, and a dense tuft of linear scaly appendages of the degenerated persistent petioles of radical leaves. These characters clearly show that *S. Karpelesae* is conspecific with *Rhodiola humilis* (Hook. f. et Thoms.) Fu. There is a good specimen of *R. humilis* collected by Walton in the same locality and date of the type specimen of *S. Karpelesae* (CAL 159462).

Rhodiola humilis (Hook. f. et Thoms.) Fu in Act. Phytotax. Sin. Addit. 1: 119 (1965)—H. Ohba in Journ. Fac. Sci. Univ. Tokyo, III, 12: 185 (1978).

Sedum humile Hook. f. et Thoms. in Journ. Linn. Soc. Bot. 2: 99 (1858)
—H. Ohba in Ohashi, Fl. E. Himal. 3rd rep. 292, fig. 36 (1975).

Sedum Karpelesae R.-Hamet in Bull. Soc. Bot. France 58: 616 (1912), syn. nov.

Rhodiola Karpelesae (R.-Hamet) Fu in Act. Phytotax. Sin. Addit. 1: 119

(1965).

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(7) 京都大学理学部植物学教室にネパールで採集されたマンネングサ1種の標本が2点ある。これは子房腹側が明らかに膨出する。ヒマラヤや中国西南部に分布する既知の種でこのような型の子房をもつのは *Sedum multicaule* だけである。しかし, *S. multicaule* とは, 1) がく片が離生し, 円あるいは鈍頭, 2) 花卉は基部で多少合生する, 3) 子房は腹側で基部から 1.5—1.8 mm 合生する, 4) 葉は長く, 2.5-4 cm になる, 等の大きな違いが認められた。そこで新種と考え, *Sedum pseudo-multicaule* と命名した。

(8) 南チベットの Kongbo 県で Ludlow, Sherriff, Elliot によって発見された *Rhodiola primuloides* は中国西南部(雲南・四川)のものに較べ花卉が大きく全縁で萼が広長円形となる違いが認められた。そこで亜種として区別し, subsp. *kongboensis* と命名した。

(9) チベットの Lhasa 周辺で採集された標本にもとづいて命名された *Sedum Karpelesae* はタイプ標本を検討した結果, *Rhodiola humilis* と同種であることが判った。